Figure 1

### HIF-1 Regulation by Hypoxia

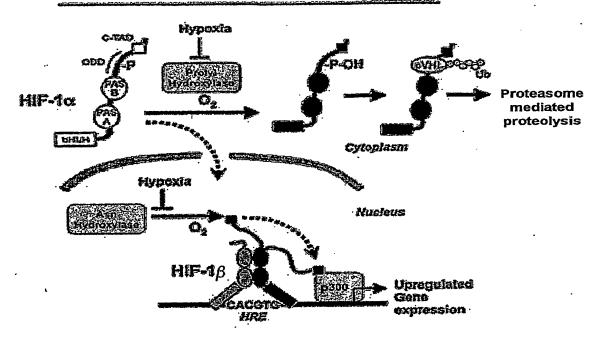


Figure 2

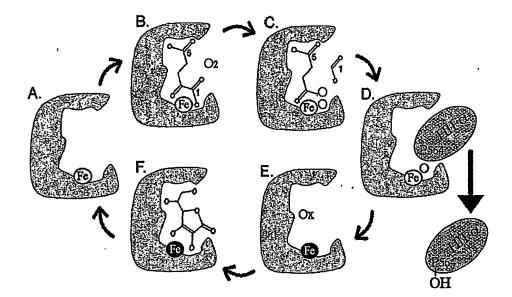
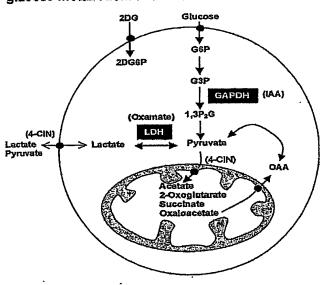


Figure 3

A. Abbreviated diagram of oxygen-independent glucose metabolism and relevant inhibitors.



B. Structural comparisons of key glucose metabolites.

2-0G	Succ	OAA	Pyr		
1 COOH 2 C=0 3 CH2 4 CH2 5 COOH	ÇООН ÇH2 ÇH2 СООН	СООН СН2 СООН	çоон с=о сн₃		

Figure 4

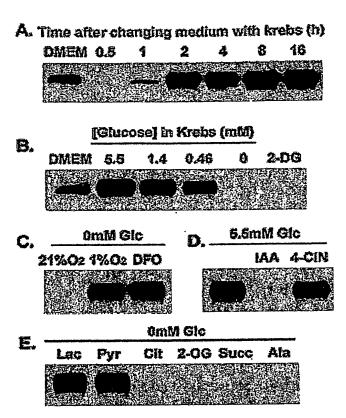


Figure 5

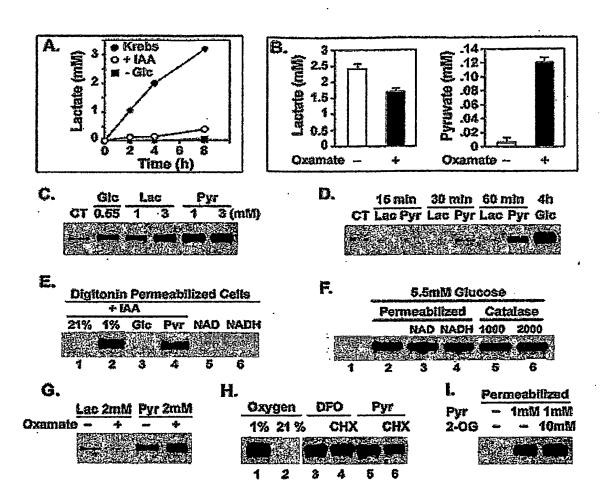


Figure 6

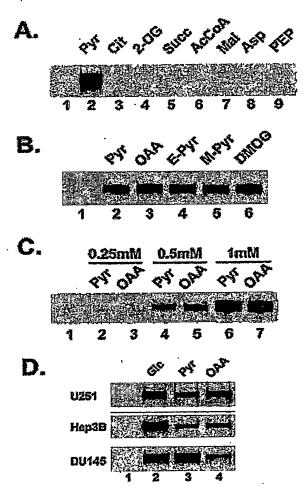


Figure 7

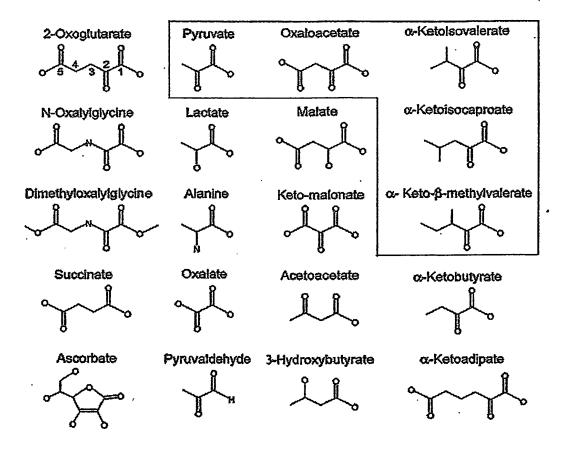
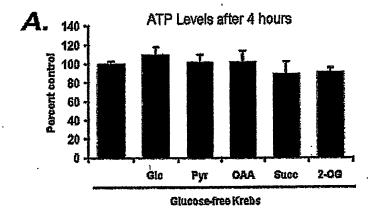


Figure 8



B.
Digitonin permeabilized cells



Figure 9

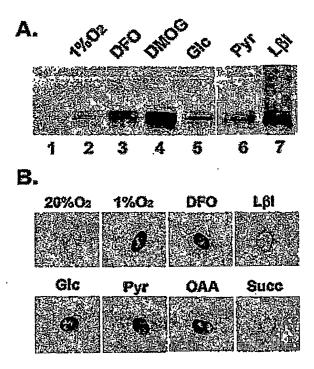


Figure 10

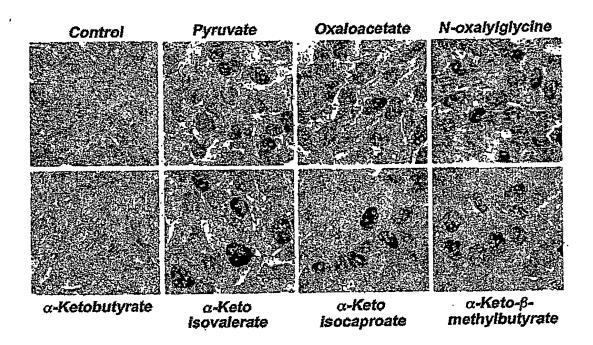


Figure 11

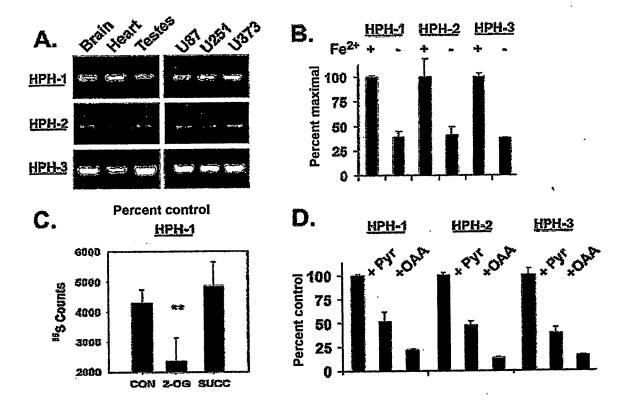


Figure 12

A.	2-OG	(μ <b>M</b> )			a salata	and the same	
	0	0.2	1	5	25	125	
B.	Fe <sup>2+</sup> (		alst Vill				
	1.2	3.6			100	300	
C.	Asc	(µ <b>W</b> )	i abasans		72 E E		
	O Mensioner	0.2	2	20		2000	

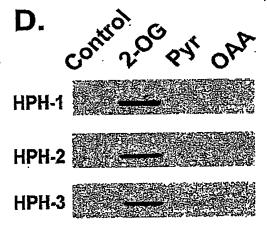


Figure 13

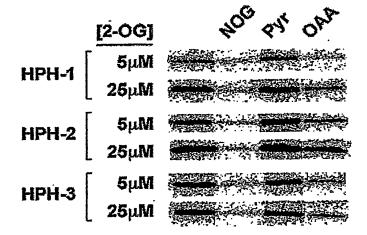
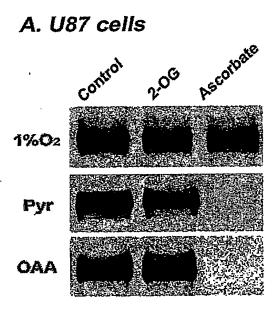


Figure 14

HPH-1		+ 1 mM OAA				<u> </u>	+ 1 mW PYK						
: 100					unicocki.				es e de la composition della c	es de la companie de			
Ascorbate	4	20	100	500	4	20	100	500	4	20	100	500	
HPH-2					+ 1 mM OAA					+1 mM, PYR			
Ascorbate	4	20	100	500	4	20	100	500	4	20	100	500	
НРН-3	•	''	N 2 41.	4 -::	+1 mM OAA			+ 1 mM PYR					
											310 40 A		
Ascorbate	8	40	200	1000	8	40	200	1000	8	40	200	1000	

Figure 15



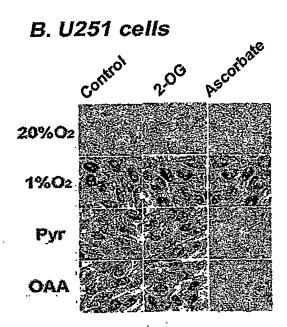


Figure 16

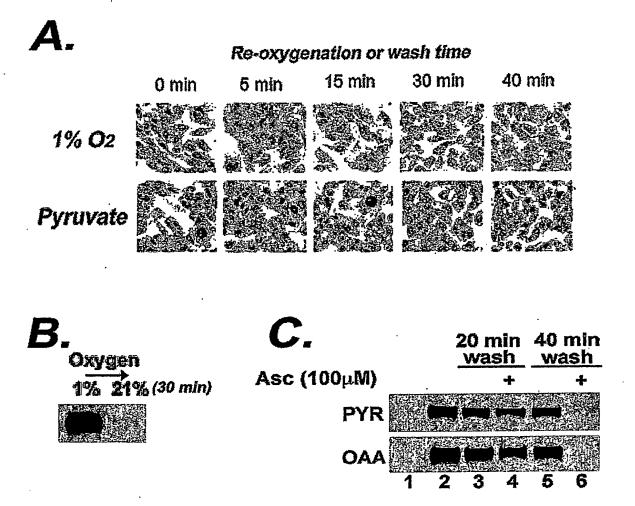


Figure 17

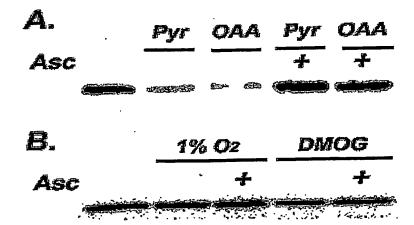
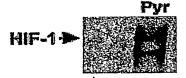


Figure 18

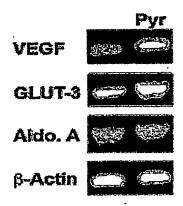
A. FIH-1 expression



B. HIF-1 Gelshift (U87)



**C. RT-PCR (U87)** 



D. RT-PCR (Hep3B)



**E.** HRE-GFP Expression



F. HRE-Luciferase expression

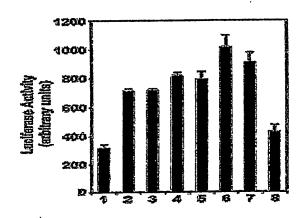


Figure 19

## Ascorbate inhibits HIF-1 mediated gene expression induced by Pyruvate and Oxaloacetate

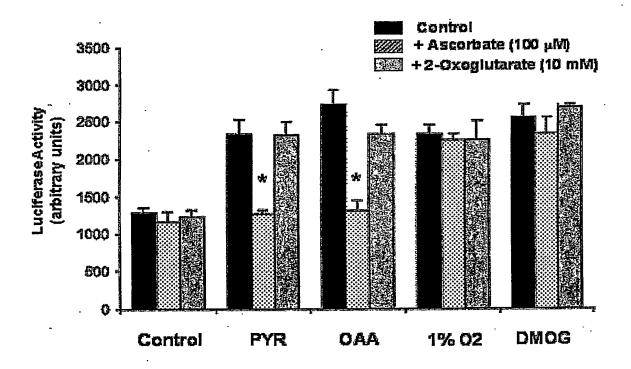


Figure 20

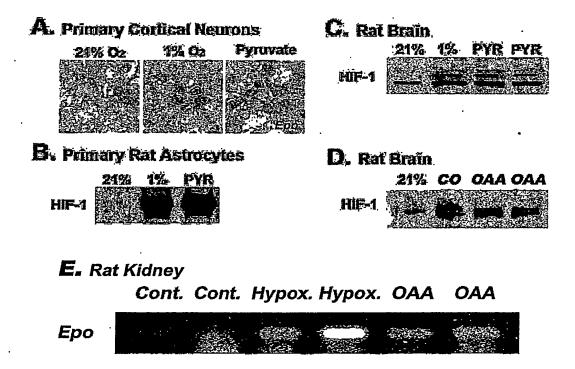
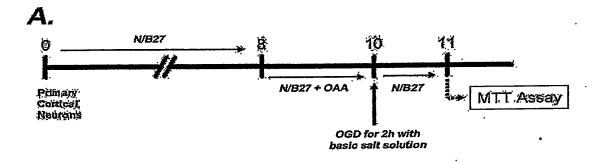
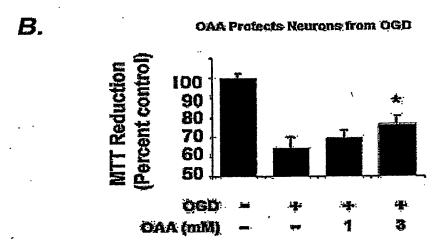


Figure 21





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